

Application No. 10/029,042

Reply to Office action of March 25, 2003

REMARKS/ARGUMENTS

In the specification, the paragraphs [0010], [0013], [0037], and [0042] have been amended to correct for minor editorial problems.

Claim 1 is amended. Claims 2-12 are canceled. Claims 13 and 14 are added.

Basis for the amendment of claim 1 may be found in the specification in paragraphs [0032], [0040], and in Fig. 1.

Basis for the amendment of claim 2 may be found in claim 1.

Basis for claim 13 may be found in the specification in paragraphs [0050], [0051], [0052], [0053], and Fig. 16.

A translation to English of Kishimoto No. 2001-55861 1A 53 pages, 2 pages of figures, and a statement by the translator of competence is provided herewith.

Claim 1 is rejected under 35 U.S.C. 103(s) over Nakanishi USPN 5,383,303's torsion spring 15, spiral rod 11, threaded follower 10 mounted on the spiral rod and being attached to the first end of the torsion spring, first means (near 13) for attaching the second end of the torsion spring to a window frame, second means 32 for attaching the first end of the spiral rod to a window sash against rotation of the spiral rod, second means for attaching comprising means for rotating (fig. 15) said spiral rod for changing base force in said torsion spring in that the spiral rod is fixedly attached to rotatable mount 32 for adjusting base force (col. 5, lines 20-37; col. 6, lines 35-68), in view of Decker USPN 2,851,721's first means for attaching the second end of a torsion spring 23

to a window sash 11 for moving a follower 27 along a spiral rod 21 by moving the sash, and a second means for attaching the first end of a spiral rod to a window frame 14 against rotation of the spiral rod in that Decker discloses that the spiral rod is stationary and the followers are moved along the rod as the sash is raised or lowered, because moving the spiral rod between followers requires extremely large or rigid rods, and normal rods would be apt to bend with use (col. 1, line 45-55). That it would be obvious to modify the torsion spring disclosed by Nakanishi to be mounted to a sash, and for the spiral rod to be mounted to a frame as taught by Decker to reduce the rod size to prevent bending

The rejection is traversed.

Amended claim 1 is different from Nakanishi.

Nakanishi describes a spiral rod attached to a vertical, braked shaft in a sliding block 16 that is incorporated slidingly within guide groove 5 of side jamb 4 of the window frame so that the shaft is raised and lowered by the sash, raises and lowers the spiral rod , and is turned by a screw driver that accesses a slot in the bottom of shaft.

This is different from amended claim 1's gear assembly fixedly mounted on the window frame comprising a gear shaft attached to the third end of the spiral rod, the gear shaft preventing axial movement of the spiral rod with respect to the window frame and rotating the spiral rod.

In claim 1 it is the torsion spring that is attached by to a window sash for axial movement of the torsion spring by the sash. It is the torsion spring in claim 1, as explained in the specification at paragraphs [0033], [0034], [0037] that can be attached to the sash by a sliding block or shoe
This is different from Nakanisi's torsion spring attached to the window frame.

Amended claim 1 is different from Decker.

Amended claim 1's gear assembly fixedly mounted on the window frame, comprising a gear attached to the spiral rod for rotating the spiral rod is different from Decker in which the spiral rod is fixed to the window frame so that it cannot rotate under any circumstance. Adjustment of base force in Decker is by rotating one end of the torsion spring by rotating an adjusting cap that is fixed to the spring. This is different from claim 1 gear shaft attached to the spiral rod for rotating the spiral rod for changing base force in the tension spring.

Amended claim 1 is different from Kishimoto.

Kishimoto describes a balance apparatus in which the spiral rod is attached to the sash so that the spiral rod cannot rotate, and so that the spiral rod is moved up and down by the sash. Adjustment of base torsion is by rotating one end of the torsion spring by a gear shaft attached to the torsion spring (see Fig. 5 and lines 1-4 of the translation). This is different from claim 1's gear attached to the spiral rod preventing axial movement of the spiral rod with respect to the window frame and for rotating the spiral rod for changing base force in the tension spring.

Claims 2-6, 8-12 are rejected under 35 U.S.C. 103(a) over Nakanishi USPN 5,383,303 in view of Decker USPN 2,851,721, and further in view of Kishimoto JP 2001055861A. Claims 2-6, and 8-12 are canceled and to them the rejection no longer applies. It is requested that the 35 U.S.C. 103(a) rejection of Claims 2-6, and 8-12 be withdrawn.

Claim 7 is rejected under 35 U.S.C. 103(a) over Nakanishi USPN 5,383,303 in view of Decker USPN 2,851,721, and further in view of Kishimoto JP2001055861A, and further in view of Davis USPN 5,152,032. Claim 7 is canceled, and to it the rejection no longer applies. It is requested that the 35 U.S.C. 103(a) rejection of claim 7 be withdrawn.

New claim 13 is different from Naanishi's means for longitudinal engagement 32 connected to gear bearing 16 and to the second end of the torsion spring (by way of rod 11 and follower 10) as

discussed in the Office Action's rejection of original claim 10.

In view of the above discussion and reasons, neither Nakanishi 5,383,303, Decker 2,851,721, nor Kishomoto JP2001055861A taken singly or in combination, disclose the present invention described in amended claim 1 and new claims 13 and 14, or make it obvious.

E. F. Taylor 889,064, A. Larson 2,041,646, D. Tappan 2,415,614, J. H. Addicks 2,776,447, F. J. Decker et al. 2,825,088, and V. V. Kubiasiak have been reviewed and do not appear to add anything that would further contribute to making the invention as described in amended claim 1 and new claims 13 and 14, obvious.

In view of the above amendments and discussion it is believed that the 35 U.S.C. 103(a) rejections of claims 1-12 are overcome. It is respectfully requested that the rejections of claims 1-12 be withdrawn and that claims 1, 13, and 14 be allowed.

A petition for extension of time and fee for three months extension accompanies this paper.

Respectfully submitted,

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